

6. A method according to claim 5 wherein the sputtering is performed by an RF sputtering method.

7. A method according to claim 5 wherein the semiconductor device is incorporated into an active matrix display device.

8. A method according to claim 5 wherein the atmosphere contains nitrogen at 75 volume% or more and argon at 25 volume% or less.

9. A method for manufacturing a semiconductor device comprising the steps of:
forming an insulating film comprising silicon nitride over a semiconductor by sputtering in an atmosphere consisting essentially of nitrogen; and
forming an electrode comprising aluminum over the insulating film.

10. A method according to claim 9 wherein the sputtering is performed by an RF sputtering method.

11. A method according to claim 9 wherein the semiconductor device is incorporated into an active matrix display device.

12. A method for manufacturing a semiconductor device comprising the steps of:
forming an insulating film comprising silicon nitride over a semiconductor by sputtering in an atmosphere consisting of nitrogen and argon; and
forming an electrode comprising aluminum over the insulating film.

13. A method according to claim 12 wherein the sputtering is performed by an RF sputtering method.

14. A method according to claim 12 wherein the semiconductor device is incorporated into an active matrix display device.

15. A method according to claim 12 wherein the atmosphere contains nitrogen at 75 volume% or more and argon at 25 volume% or less.

16. A method for manufacturing a semiconductor device comprising the step of:
forming a transistor; and

forming an insulating film comprising silicon nitride over the transistor by sputtering in an atmosphere consisting essentially of nitrogen.

17. A method according to claim 16 wherein the sputtering is performed by an RF sputtering method.

18. A method according to claim 16 wherein the semiconductor device is incorporated into an active matrix display device.

19. A method for manufacturing a semiconductor device comprising the step of:
forming a transistor; and
forming an insulating film comprising silicon nitride over the transistor by sputtering in an atmosphere consisting of nitrogen and argon.

20. A method according to claim 19 wherein the sputtering is performed by an RF sputtering method.

21. A method according to claim 19 wherein the semiconductor device is incorporated into an active matrix display device.